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## HR 14 REQUESTING REGULATION OF GEOTHERMAL DISCHARGES

Statement for  
House Committee on  
Energy, Ecology and Environmental Protection  
Public Hearing - 5 March 1982

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HR 14 would request the Department of Health to "amend present regulations or adopt new regulations to include the monitoring of discharges generated by geothermal activities." This statement on the resolution has been submitted for review to the Legislative Subcommittee of the Environmental Center of the University of Hawaii but does not represent an institutional position of the University.

The monitoring of discharges of air and water pollutants from geothermal facilities should be required. However, we wish to point out that mere monitoring of the discharges will not constitute their regulation, and that the adoption of appropriate standards for regulation will require, not only understanding of the rates of discharge without control, but understanding of the practicality and effectiveness of controls, and understanding also of natural background concentrations of the pollutants of concern. Because these concentrations vary from place to place and time to time, they also must be monitored.

The major present concern is with the present and prospective geothermal power-development facilities on the Puna rift of Kilauea volcano. Because we suspect that it is concerns with the air pollution that may result from the operation of these facilities that has led to the introduction of HR 14, our discussion will deal principally with the monitoring of air pollutant emissions and background. The monitoring of water pollutant discharges and background should also be of concern.

The air pollutants of principal concern along the Puna rift are sulfur and mercury compounds. The presence of other compounds has been suspected, but they have not been detected in significant amounts. Emissions of the sulfur and mercury compounds from the Puna Well have been monitored since it was first drilled. A background survey has indicated that the contribution of the emissions to mercury concentrations in the

vicinity is negligible; and controls have been placed on the emissions of the sulfur compounds from the well. A subcommittee of the Governor's Advisory Committee on geothermal development has recommended a further baseline survey of air pollution along the Puna rift. Although the Department of Health (DOH) should be vitally concerned with the results of the proposed baseline survey, it is not necessary that the survey be made by the DOH. Whatever institution undertakes the survey will require funds for it, which HR 14 will not provide.

Although monitoring of the pollutant emissions of the present Puna geothermal well has been provided voluntarily by its developers, the University and the State, it is appropriate that the DOH require such monitoring generally, as is requested in HR 14. It is also appropriate that the DOH adopt standards with respect to such emissions, and require in its regulations that the concerns be controlled in accordance with the standards. We suggest that preliminary standards and control requirements should be adopted promptly even though they may have to be modified later as more information on background concentrations becomes available. Our reason for this suggestion is that controls to meet the standards should be taken into consideration in estimating the cost of further geothermal developments. We caution, however, that controls on the pollutant emissions of geothermal developments will not reduce concentrations of the pollutants resulting from natural emissions of the pollutants.